Rec'd June 13
Ans. June 16th

Smithsonian Institution
Washington June 6th
1853.

Dr Engelmann

Dear Sir

In a recent letter
to Prof. Baird you remark that you
will not be able for some time yet to
make the proposed abstracts of Prof.
Observations. As I have a Report
of results for Each year from 1849 to
1852 inc. just ready to go to Press in
which I was extremely anxious to in-
clude the summations of the best author-
ities both as an extension of & criticism
upon the greater number at so many
known, I beg to trouble you with an

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inquiry and request upon the point.
The plan includes a summary of gen-
-eral results for a series of years in
Temperature & Precipitation also, being
a revision or reconstruction rather of Dove's
Temperature Tables for the North American
Continent, embracing 650 Stations where
he had but 140 & many of them grossly
in Error. The Summaries of Precipit-
-ation embrace more than 400 Stations,
- all giving Means & Sums for each
month Season & Year.

To aid this purpose may I not beg a
reference to the most recent published
Statement of the results & observations at
St Louis, - one in which typographical
Errors would not occur & mislead - and
and any prepared Summary of obser-
-

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ations at Stations near, or at St Louis
for Either of the years since 1849.

A thorough revision of the Rainfall
Records from the beginning has been made,
and of the U.S. University records - and
the amount of matter in this condensed
shape of means for a Series of years is
very great. Attempts to do justice to
this most extensive and important illus-
tration - which will be accompanied by
Charts of thermal lines & distribution
of precipit-ation for each month Season
& year of these years & the general Sum-
-mary. I hope you will excuse me
for troubling you now.

Very respectfully
Your obt Servt
C. Blodgett

Dr G. Engelmann — In charge of Met. Observations & Reports

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GEORGE ENGELMANN

Blodget

Rec'd June 25th

Ans Sept 29

Office of the Board of Trade,

Philadelphia, June 20, 1863.

Dr Geo. Engelmann,

St Louis:

Dear Sir,

I have been with great interest a publication recently made by you in the Rocky Mountain News, or at least quoted by our local journals from that paper, giving a comparison of altitudes in the Colorado Gold Region from observations by Dr Parry. I have been doubly interested in the results these observations; first – in the confirmation they afford of the calculations of altitudes made by me from the several surveys of the Pacific Railroad Routes, made through this region – that of Capt. Gunnison (subsequently Lt. Beckwith) particularly, and to some extent that of Lt Whipple etc – with the 35th parallel. All the observations of both these lines came to my hand in a very crude state, and were calculated with somewhat novel aids. I prepared a new scale of heavy corrections; also a modification of the correction for atmospheric temperatures which was of great necessity, yet very difficult to use except arbitrarily;

in addition made
And Corrections for non-periodic variations of pressure,
often derived from Observations at a great distance. Un-
-der these circumstances the actual altitudes were not
always proved with sufficient Accuracy. I have been
solicitous to see the results of further observations in those
high districts, but these are the first.

Again I sometime since assumed that the Condi-
-tions belonging to the plateaus of the interior of this Continent
were peculiar. In an Essay furnished for the Appendix to
report of the Patent Office in 1853, I noticed the high range
of forests as well as of cultivation (pages 429 & 431, Agl. Rep.
1853.) and from that time forward, assumed that the rules
found to apply elsewhere could not apply here. In my
report to the War Department on the Observations of the
Mexican Posts (1854 & 1855) I adopted these principles
in drawing the isothermal lines; and finally, in
the work published at this City in 1857, more fully
enlarged upon the same necessity to consider the
great interior plateaus not only as being heated
to a degree not known in Europe, at the same al-
-titudes, but as being incapable of thermal Abstrac-
-tion by lines reduced to sea level.

Upon this great fact of high interior tempera-
-tures, and according to the principles applicable to

General averages of surface temperature, the whole system of isothermal elucidation originally adopted & based. That System was disputed by many at the time, particularly at the Montreal meeting of the American Association, and a thermal map was published, I think by Prof. Henry, on which the lines were drawn as reduced, by European rules, to Sea level.

I trust Dr Barry will publish these Observations and Calculations for distribution. Though for some years much occupied with other matters I have great interest in that most noble and promising of all departments of Science, the physics of this Continent

Very respectfully Yours
Louis Blodget

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